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(54) Title: **FRACTAL-FORMING ALKYLKETENE DIMERS FOR INTEGRAL MEMBRANE PROTEIN CRYSTAL GROWTH**

(57) Abstract: This invention provides a device for promoting crystallization of integral membrane proteins using a surface of alkylketene dimers doped with a nucleating compound. A coating that enhances crystallization of integral membrane proteins in the presence of detergent is provided. In another aspect of the invention methods of creating a surface of alkylketene dimers doped with a nucleating compound to promote crystallization of integral membrane proteins are provided. In another aspect of the invention methods of crystallizing integral membrane proteins using surfaces coated with alkylketene dimers doped with a nucleating compound are provided.

WO 2005/031310 A2